Patent

Docket No. ALUJA.0102CIP

Serial No. 10/791.054

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application. This submission is identical to the unentered amendments accompanying the "First

Reply to Office Action" mailed by the Applicant on March 20, 2006.

Claim 1. (Currently Amended): A ballistic panel for providing ballistic protection, the panel

comprising a plurality of deformable pieces that are arranged side-by-side and

detachably retained into the panel in a manner that a piece impinged by a projectile

becomes attached to the projectile and removed from the panel, whereby the size and

shape of the projectile is increased by the attachment of the piece in order to be more

easily stopped by any further panel provided for stopping the projectile, wherein said

pieces form part of at least one high-tensile strength fabric cut into said pieces, and

wherein the at least one high-tensile strength fabric is made of polymeric threads, said

polymeric threads being one or a combination selected from the group consisting of:

aramid threads, polyester threads, synthetic threads, aramid fibers, ultra high

resistance polyethylene fibers, and thread fibers.

Claim 2. (Original): The panel of claim 1, wherein the pieces are arranged in at least one

plane.

Claim 3. (Withdrawn): The panel of claim 1, wherein the plurality of pieces is a plurality of

compact ballistic units that are arranged into a side-by-side pattern and compacted

into a dense panel, wherein each ballistic unit comprises a plurality of fibers arranged

into a bundle that is folded and entangled into a compact mass of fibers.

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Claim 4. (Withdrawn): The panel of claim 3, wherein each compact ballistic unit comprises a

bundle of fibers that is folded and entangled into a knot.

Claim 5. (Canceled).

Claim 6. (Original): The panel of claim 5, wherein the at least one high-tensile strength fabric

comprises a plurality of fabric sheets arranged into a pattern in that the pieces of a

fabric sheet are offset relative the pieces of any adjacent fabric sheet.

Claim 7. (Canceled).

Claim 8. (Withdrawn): The panel of claim 1, wherein the plurality of pieces is a plurality of

side-by-side arranged ring members, each ring member defining an inner diameter

smaller than an outer maximum dimension of the projectile.

Claim 9. (Withdrawn): The panel of claim 8, wherein each ring member is selected from the

group comprising lock washers, tooth washers, spring washers, rings, spring coil,

sand clock-shaped spring and mixtures thereof.

Claim 10. (Withdrawn): The panel of claim 8, wherein the ring members are connected to each

other and arranged into at least one plane.

Claim 11. (Withdrawn): The panel of claim 8, wherein the ring members are arranged side-by-

side in more than one adjacent planes in a manner that the ring members of one plane

are offset of the ring members of the adjacent plane.

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Claim 12. (Previously Presented): The panel of claim 1, wherein the deformable pieces are

arranged side-by-side into a material selected from the group consisting of:

cardboard, rubber, polymers, plastics, EVA, and composites.

Claim 13. (Withdrawn): The panel of claim 8, wherein the projectile is provided with a piercing

tip having a minor dimension and the inner diameter of the ring member is larger than

the minor dimension of the projectile member, for blocking the piercing tip.

Claim 14. (Withdrawn): The panel of claim 3, wherein the fibers of the ballistic units are made

of polymeric threads selected from the group comprising aramid threads, polyester

threads, synthetic threads, aramid fibers, ultra high resistance polyethylene fibers,

thread fibers, and mixtures thereof.

Claim 15. (Currently Amended): A ballistic armored assembly for providing ballistic

protection, the assembly comprising:

i, at least one ballistic panel comprising a plurality of side-by-side deformable pieces

that are detachably retained into the panel in a manner that a piece impinged by a

projectile is removed from the panel and attached to the projectile, whereby the size

and shape of the projectile is increased by the attachment of the piece; [[and]]

ii, at least one projectile-stopping panel for stopping the projectile having said

increased size and shape; and[[.]]

iii, a front side and a rear side, with the at least one ballistic panel is located at least at

the front side for receiving the impinging projectile and the at least one projectile-

stopping panel is located at least at the rear side for stopping the projectile having the

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increased size and shape after passing through the ballistic panel, wherein the

projectile-stopping panel is a projectile-trapping panel and the pieces form part of at

least one high-tensile strength fabric cut into said pieces, with the fabric being made

of polymeric threads being one or a combination selected from the group consisting

of: aramid threads, polyester threads, synthetic threads, aramid fibers, ultra high

resistance polyethylene fibers, and thread fibers.

Claim 16. (Canceled).

Claim 17. (Withdrawn): The assembly of claim 16, wherein the projectile-stopping panel is a

projectile-trapping panel and the plurality of pieces is a plurality of compact ballistic

units that are arranged into a side-by-side pattern and compacted into a dense panel,

wherein each ballistic unit comprises a plurality of fibers arranged into a bundle that

is folded and entangled into a compact mass of fibers.

Claim 18. (Withdrawn): The assembly of claim 17, wherein the fibers of the ballistic units are

made of polymeric threads selected from the group comprising aramid threads,

polyester threads, synthetic threads, aramid fibers, ultra high resistance polyethylene

fibers, thread fibers and mixtures thereof.

Claim 19. (Canceled).

Claim 20. (Original): The assembly of claim 19, wherein the at least one high-tensile strength

fabric comprises a plurality of fabric sheets arranged into a pattern that the pieces of a

fabric sheet are offset relative the pieces of any adjacent fabric sheet.

- Claim 21. (Withdrawn): The assembly of claim 16, wherein the projectile-stopping panel is a projectile-trapping panel and the plurality of pieces is a plurality of side-by-side arranged ring members, each ring member defining an inner diameter smaller than an outer maximum dimension of the projectile.
- Claim 22. (Withdrawn): The assembly of claim 21, wherein each ring member is selected from the group comprising lock washers, tooth washers, spring washers, rings, spring coil, sand clock-shaped spring and mixtures thereof.
- Claim 23. (Withdrawn): The assembly of claim 22, wherein the ring members are connected to each other and arranged into at least one plane.
- Claim 24. (Withdrawn): The assembly of claim 21, wherein the ring members are arranged side-by-side in more than one adjacent planes in a manner that the ring members of one plane are offset of the ring members of the adjacent plane.
- Claim 25. (Previously Presented): The assembly of claim 15, wherein the deformable pieces are arranged side-by-side into a material selected from the group consisting of: cardboard, rubber, polymers, plastics, EVA, and composites.
- Claim 26. (Withdrawn): The assembly of claim 21, wherein the projectile is provided with a piercing tip having a minor dimension and the inner diameter of the ring member is larger than the minor dimension of the projectile member, for blocking the piercing tip.
- Claim 27. (Original): The assembly of claim 16, wherein the panels form a pack with the panels attached to each other.

- Claim 28, (Original): The assembly of claim 27, wherein at least one impact cushioning panel is provided at the rear side.
- Claim 29. (Currently Amended): The assembly of claim 15[[16]], wherein the projectilestopping panel is a projectile-trapping panel comprised of a compacted mass of loosely-entangled fibers, whereby the projectile having said increased size and shape is more easily stopped by the projectile-trapping panel.
- Claim 30. (Previously Presented): The assembly of claim 29, wherein the fibers of the at least one projectile-trapping panel are formed from polymeric threads, one or a combination selected from the group consisting of: aramid threads, polyester threads, synthetic threads, aramid fibers, ultra high resistance polyethylene fibers, and thread fibers.
- Claim 31. (Withdrawn): The assembly of claim 29, wherein the fibers of the projectile-trapping panel are wrapped around a core support to form said at least one projectile-trapping panel.
- Claim 32. (Withdrawn): The assembly of claim 29, wherein the fibers of the projectile-trapping panel are confined into an outer cover.
- Claim 33. (Withdrawn): The assembly of claim 29, wherein the at least one projectile-trapping panel is a panel compacted into a press.
- Claim 34. (Withdrawn): The assembly of claim 29, wherein the at least one projectile-trapping panel is a panel compacted by extracting any air in the mass of entangled fibers by means of a vacuum chamber.

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Claim 35. (Not Entered): The ballistic panel of claim 1, wherein the pieces are pieces of

Kevlar®.

Claim 36. (Not Entered): The ballistic panel of claim 5, wherein the high-tensile strength fabric

is Kevlar®.

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 16. This sheet, which includes

Fig. 15-16, replaces the original sheet including Fig. 15-16. In Fig. 16, elements 5 and 6 from

Fig. 1 have been added to Fig. 16.

Attachments: Replacement Sheet

Annotated Sheet Showing Changes